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PERKINS COIE LLP
P.O. BOX 2168
MENLO PARK, CA 94026

EXAMINER

HUTTON JR, WILLIAM D

ART UNIT	PAPER NUMBER
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2176

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	04/17/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/023,010

Applicant(s)

HADFIELD ET AL.

Examiner

Doug Hutton

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 31 October 2006.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-62 is/are pending in the application.
- 4a) Of the above claim(s) 1-15, 27-29 and 36-62 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 16-26 and 30-35 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

Applicant's Response

In Applicant's Responses dated 10/31/2006 and 01/31/2007, Applicant amended the Specification, amended Claims 16, 18, 20, 22, 30, 34 and 35, and argued against all objections and rejections previously set forth in the Office Action dated 03/16/2006.

Based on the amendments to the Specification, the objections to the Specification previously set forth are withdrawn.

Based on the amendments to Claims 16, 18, 20, 30, 34 and 35, the objections to those claims previously set forth are withdrawn.

Based on the amendments to Claim 30, the rejections of Claims 30-34 under 35 U.S.C. 112, first and second paragraphs, for those claims previously set forth are withdrawn.

Claim Objections

Claim 21 is objected to because of the following informalities:

- The phrase "*wherein said replica is a **Word** document*" in Line 1 should be amended to — wherein said replica is a word processing document — to avoid the use of a trademark in the recited claim limitation.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claims 16-26, 30-32 and 35 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

Claims 16-21:

The language of the claims raise a question as to whether the claims are directed merely to an abstract idea that would not result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

In summary, Claim 16 recites a method for responding to a request to review a replica of a document comprising "*editing said replica*" and "*creating a difference file using said replica and said edited replica.*" Thus, the invention merely is a method for manipulating electronic data without producing a tangible result.

As currently recited, Claim 16 is directed to an abstract idea that does not produce a tangible result in that nothing is done with the "*difference file*" after it is created. The "*difference file*" is not printed into a hardcopy, stored into memory for later access by a user, or displayed via a monitor. Accordingly, there is no tangible result of the invention recited in Claim 16.

The claim limitation reciting that the method is "*used on a computer*" (Claim 16, Line 1), does not obviate the rejection because the claim limitations, as a whole, do not produce a tangible result.

Claims 17-21 are dependent upon Claim 16 and add limitations that either merely specify types of data that are manipulated or further manipulate the data without producing a tangible result. Thus, Claims 17-21 do not recite statutory subject matter.

Claims 22-26:

The language of the claims raise a question as to whether the claims are directed merely to an abstract idea that would not result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

In summary, Claim 22 recites a method for generating a response to an unedited replica comprising forming a revised replica by editing the unedited replica, partitioning both the unedited replica and the revised replica into segments, sorting segments of the unedited replica into a binary tree, matching text in one of the segments of the edited replica to text in one of the segments of the unedited replica in order to form a block, and creating a difference file comprising the block. That is, the invention merely is a method for manipulating electronic data without producing a tangible result.

As currently recited, Claim 22 is directed to an abstract idea that does not produce a tangible result in that nothing is done with the "*difference file*" after it is created. The "*difference file*" is not printed into a hardcopy, stored into memory for later access by a user, or displayed via a monitor. Accordingly, there is no tangible result of the invention recited in Claim 22.

The claim limitation reciting that the method is "*used on a computer*" (Claim 22, Line 1), does not obviate the rejection because the claim limitations, as a whole, do not produce a tangible result.

Claims 23-26 are dependent upon Claim 22 and add limitations that either merely specify types of data that are manipulated or further manipulate the data without producing a tangible result. Thus, Claims 23-26 do not recite statutory subject matter.

Claims 30-32:

The language of the claims raise a question as to whether the claims are directed merely to an abstract idea that would not result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

In summary, Claim 30 recites a "*data structure*" stored on a computer-readable medium, wherein the "*data structure*" comprises data identifying a contributing author and a "*difference file*." The subject matter of Claim 30 amounts to nonfunctional descriptive material in that the claim merely recites an arrangement of data.

The recitation that the "*data structure*" is stored on a computer-readable medium does not make the subject matter statutory because it is **nonfunctional** descriptive material. Additionally, the claim does not recite a true "data structure," as defined by the New IEEE Standard Dictionary of Electrical and Electronics Terms (5th ed. 1993) – "a physical or logical relationship among data elements, designed to support specific data

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manipulation functions.” The subject matter of the claim, as currently recited, is not designed to support specific data manipulation functions.

Claims 31 and 32 add limitations that merely specify types of data, and thus do not recite statutory subject matter.

Claim 35:

The language of the claims raise a question as to whether the claims are directed merely to an abstract idea that would not result in a practical application producing a concrete, useful, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

In summary, Claim 35 recites “*systems*” and “*modules*” for performing functions. The “*systems*” and “*modules*” comprise only software that perform the functions. Thus, the claimed invention is software per se and does not recite patentable subject matter.

Additionally, Claim 35 is directed to an abstract idea that does not produce a tangible result in that nothing is done with the “*difference file*” after it is produced. The “*difference file*” is not printed into a hardcopy, stored into memory for later access by a user, or displayed via a monitor. Accordingly, there is no tangible result of the invention recited in Claim 35.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 16, 21 and 30 are rejected under 35 U.S.C. 102(b) as being anticipated by Moody et al., U.S. Patent No. 5,890,177 (hereinafter, "Moody").

Claim 16:

Moody discloses *a method, using a computer system, for a collaborating author to respond to a request to review a replica of an original document sent by a managing author* (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system allows authors to send copies of original documents to editors), *said method comprising:*

- *editing said replica, said editing forming an edited replica* (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system allows editors to edit copies of original documents); *and*
- *creating a difference file using said replica and said edited replica* (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system creates paragraph sets illustrating differences between original documents and edits of original documents).

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Claim 21:

Moody discloses *the method of Claim 16, wherein said replica is a Word document* (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system allows users to create word processing documents).

Claim 30:

Moody discloses *a data structure stored in a computer readable medium for providing an edited replica from a contributing author to a managing author* (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system allows editors to edit copies of original documents and transmit edited documents to authors), *said data structure comprising:*

- *data comprising an identification of said contributing author* (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that, when editors edit documents and return edited documents to the system, the edited documents include data identifying the editors); *and*
- *a difference file formed from using said edited replica in conjunction with an unedited replica* (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system creates consolidated markup documents comprising paragraph sets illustrating differences between original documents and edits of original documents).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17-20 and 31-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moody, in view of Serbinis et al., U.S. Patent No. 6,584,466 (hereinafter, "Serbinis").

Claim 17:

Moody discloses every limitation of Claim 16, as indicated in the above rejection.

Moody fails to expressly disclose *editing [that] is based on editing privileges set by said managing author.*

Serbinis teaches a collaborative Internet-based document management system that allows authors to: 1) create word processing documents; 2) upload the documents to the system for the purpose of allowing editors to access and manipulate the documents; and 3) set editing privileges for the editors (see Figures 1-12; see Column 1, Line 1 through Column 22, Line 12 → Serbinis teaches these limitations, as clearly indicated in the cited figures and text), for the purpose of allowing authors to fully control the documents they create. This teaching of Serbinis is equivalent to:

- *editing [that] is based on editing privileges set by said managing author.*

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Moody, to include:

- *editing [that] is based on editing privileges set by said managing author,*
for the purpose of allowing authors to fully control the documents they create, as taught in Serbinis.

Claim 18:

Moody discloses *the method of Claim 16, further comprising:*

- *generating a response file comprising data and said difference file* (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system creates consolidated markup documents comprising the paragraph sets illustrating differences between original documents and edited documents and other data), *said data comprising an item identifying said collaborating author* (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that, when editors edit documents and return edited documents to the system, the edited documents include data identifying the editors).

Moody fails to expressly disclose:

- *generating a response file comprising XML data; and*
- *encrypting said response file.*

Serbinis teaches a collaborative Internet-based document management system that allows authors and editors to: 1) generate files comprising XML data; 2) encrypt the files; and 3) transmit the files (see Figures 1-12; see Column 1, Line 1 through Column 22, Line 12 → Serbinis teaches these limitations, as clearly indicated in the cited figures and text), for the purpose of providing secure transmissions of data. This teaching of Serbinis is equivalent to:

- *generating a response file comprising XML data; and*
- *encrypting said response file.*

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Moody, to include:

- *generating a response file comprising XML data; and*
- *encrypting said response file,*

for the purpose of providing secure transmissions of data, as taught in Serbinis.

Claim 19:

Moody fails to expressly disclose *XML data further compris[ing] a unique identifier identifying said response file.*

Serbinis teaches a collaborative Internet-based document management system that allows editors to edit original documents, modify the documents and return the edited documents to the system, wherein the edited documents are assigned new identifiers (see Figures 1-12; see Column 1, Line 1 through Column 22, Line 12 → Serbinis teaches these limitations, as clearly indicated in the cited figures and text), for the purpose of tracking and storing versions of documents. This teaching of Serbinis is equivalent to:

- *XML data further compris[ing] a unique identifier identifying said response file.*

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Moody, to include:

- *XML data further compris[ing] a unique identifier identifying said response file,*
for the purpose of tracking and storing versions of documents, as taught in Serbinis.

Claim 20:

Moody discloses *the method of Claim 16, further comprising:*

- *receiving an file* (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation, as clearly indicated in the cited figures and text).

Moody fails to expressly disclose:

- *receiving an **EDF** file; decrypting said EDF file; and*
- *extracting said replica and said editing privileges from said EDF file.*

Serbinis teaches a collaborative Internet-based document management system that allows authors to: 1) create word processing documents; 2) upload the documents to the system for the purpose of allowing editors to access and manipulate the documents; and 3) set editing privileges for the editors (see Figures 1-12; see Column 1, Line 1 through Column 22, Line 12 → Serbinis teaches these limitations, as clearly indicated in the cited figures and text), for the purpose of allowing authors to fully control the documents they create.

Serbinis also teaches a collaborative Internet-based document management system that allows authors and editors to: 1) generate files comprising XML data; 2) encrypt the files; and 3) transmit the files (see Figures 1-12; see Column 1, Line 1 through Column 22, Line 12 → Serbinis teaches these limitations, as clearly indicated in the cited figures and text), for the purpose of providing secure transmissions of data.

These teachings of Serbinis are equivalent to:

- *receiving an EDF file; decrypting said EDF file; and*
- *extracting said replica and said editing privileges from said EDF file.*

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Moody, to include:

- *receiving an EDF file; decrypting said EDF file; and*
- *extracting said replica and said editing privileges from said EDF file,*

for the purposes of allowing authors to fully control the documents they create and providing secure transmissions of data, as taught in Serbinis.

Claim 31:

Moody discloses every limitation of Claim 30, as indicated in the above rejection.

Moody fails to expressly disclose *data [that] is in eXtensible Markup Language (XML) format.*

Serbinis teaches a collaborative Internet-based document management system that allows authors and editors to: 1) generate files comprising XML data; 2) encrypt the files; and 3) transmit the files (see Figures 1-12; see Column 1, Line 1 through Column 22, Line 12 → Serbinis teaches these limitations, as clearly indicated in the

cited figures and text), for the purpose of providing a flexible and extensible format for the data. This teaching of Serbinis is equivalent to:

- *data [that] is in eXtensible Markup Language (XML) format.*

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Moody, to include:

- *data [that] is in eXtensible Markup Language (XML) format,*

for the purpose of providing a flexible and extensible format for the data, as taught in Serbinis.

Claim 32:

Moody discloses *data further compris[ing] an e-mail address for said contributing author* (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that communications between authors and editors include email addresses).

Claim 33:

Moody, in view of Serbinis, fails to expressly disclose/teach *[encrypting only the data] when said data structure is sent to said managing author via a communications network*. However, the examiner takes **Official Notice** that it was well-known in the art

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to partially encrypt files for transmission in order to provide some level of security without the cost of encrypting all traffic on the computer network.

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Moody, in view of Serbinis, to include:

- *[encrypting only the data] when said data structure is sent to said managing author via a communications network,*

in order to provide some level of security without the cost of encrypting all traffic on the computer network, as was well-known in the art.

Claim 34:

Moody discloses:

- *sending said data structure to said managing author via a communications network* (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 – Moody discloses this limitation in that the document editing system allows editors to return edited documents to authors).

Moody fails to expressly disclose:

- *encrypting at least said difference file when said data structure is sent to said managing author via a communications network.*

Serbinis teaches a collaborative Internet-based document management system that allows authors and editors to: 1) generate files comprising XML data; 2) encrypt the files; and 3) transmit the files (see Figures 1-12; see Column 1, Line 1 through Column 22, Line 12 → Serbinis teaches these limitations, as clearly indicated in the cited figures and text), for the purpose of providing secure transmissions of data. This teaching of Serbinis is equivalent to:

- *encrypting at least said difference file when said data structure is sent to said managing author via a communications network.*

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Moody, to include:

- *encrypting at least said difference file when said data structure is sent to said managing author via a communications network,*

for the purpose of providing secure transmissions of data, as taught in Serbinis.

Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moody, in view of Hug et al., U.S. Patent No. 5,806,078 (hereinafter, "Hug").

Claim 35:

Moody discloses a system for distributing processing of a plurality of comparisons between a replica sent by a managing author and a plurality of edited

replicas at a plurality of contributing authors (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system allows authors to send copies of original documents to editors), comprising:

- *a first computer system for creating said replica from said original document (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system allows authors to create copies of original documents);*
- *a plurality of second computer systems for receiving said replica (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system allows editors to receive copies of original documents from authors), wherein each second computer system of said plurality of second computer systems comprises:*
 - *a word processing module for editing said replica by a contributing author of said plurality of contributing authors to form an edited replica of said plurality of edited replicas (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system allows editors to edit copies of original documents),*

wherein the first computer system comprises a difference module for producing a difference file from said edited replica and said replica (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the

document editing system creates paragraph sets illustrating differences between original documents and edits of original documents).

Moody fails to expressly disclose:

- *a second computer system comprising:*
 - *a difference module for producing a difference file from said edited replica and said replica.*

Hug teaches a document version management system comprising computers having word processing modules for editing documents and difference modules for producing files storing differences between versions of documents (see Figures 1-64; see Column 1, Line 1 through Column 24, Line 18 → Hug teaches these limitations, as clearly indicated in the cited figures and text) , for the purpose of saving storage space when storing edited documents. This teaching of Hug is equivalent to:

- *a second computer system comprising:*
 - *a difference module for producing a difference file from said edited replica and said replica.*

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Moody, to include:

- *a second computer system comprising:*

- *a difference module for producing a difference file from said edited replica and said replica,*

for the purpose of saving storage space when storing edited documents, as taught in Hug.

Claims 22 and 24-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moody, in view of Aiken, U.S. Patent No. 6,658,626 (hereinafter, "Aiken").

Claim 22:

Moody discloses *a method, using a computer system, for generating a response to an unedited replica of an original document sent by a managing author to a contributing author for review* (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system allows editors to edit copies of original documents), *comprising:*

- *forming a revised replica by editing said unedited replica* (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system allows editors to edit copies of original documents);
- *partitioning said unedited replica into a first plurality of segments* (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system divides original documents into sections for comparison to sections of edits of original documents);

- *sorting segments of said first plurality of segments based on a comparison operator* (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system compares sections of original documents with sections of edits of original documents);
- *partitioning said revised replica into a second plurality of segments* (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system divides edits of original documents into sections for comparison to sections of original documents);
- *for a segment of said second plurality of segments, finding a best match to form a block of at least one matching byte* (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system compares sections of edits of original documents with sections of original documents to find matches); *and*
- *creating a difference file comprising said block* (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system uses the comparisons to create paragraph sets illustrating differences between original documents and edits of original documents).

Moody fails to expressly disclose:

- *sorting segments of said first plurality of segments into a binary tree based on a comparison operator; and*

- *for a segment of said second plurality of segments, finding a best match in said binary tree to form a block of at least one matching byte.*

Aiken teaches a document comparison routine that sorts segments of documents into binary trees and compares the documents (see Figures 1-8; see Column 1, Line 1 through Column 24, Line 16 → Aiken teaches these limitations, as clearly indicated in the cited figures and text) for the purpose of facilitating document comparison. This teaching of Aiken is equivalent to:

- *sorting segments of said first plurality of segments into a binary tree based on a comparison operator; and*
- *for a segment of said second plurality of segments, finding a best match in said binary tree to form a block of at least one matching byte.*

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Moody, to include:

- *sorting segments of said first plurality of segments **into a binary tree** based on a comparison operator; and*
- *for a segment of said second plurality of segments, finding a best match in said binary tree to form a block of at least one matching byte,*

for the purpose of facilitating document comparison, as taught in Aiken.

Claim 24:

Moody discloses *a segment of said first plurality of segments [being] delimited by a delimiter* (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system divides original documents into sections for comparison to sections of edits of original documents).

Claim 25:

Moody discloses *[a] best match [that] comprises an exact match* (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system performs document comparison at the line and word levels).

Claim 26:

Moody discloses *[a] best match [that] comprises a partial match* (see Figures 1-5; see Column 1, Line 1 through Column 14, Line 40 → Moody discloses this limitation in that the document editing system performs document comparison at the page and paragraph levels).

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Moody, in view of Aiken, and further in view of Queen, U.S. Patent No. Re. 35,861 (hereinafter, "Queen").

Claim 23:

As indicated in the above rejection, Moody, in view of Aiken, discloses/teaches every limitation of Claim 22.

Moody, in view of Aiken, fails to expressly disclose/teach *extending said block by matching bytes on both sides of said block*.

Queen teaches a document comparison system that compares two versions of the same document by hashing the versions of the document, comparing the documents, establishing identity blocks having anchorpoints and expanding the identity blocks outwardly from the anchorpoints (see Figures 1-5; see Column 1, Line 1 through Column 16, Line 18 → Queen teaches these limitations, as clearly indicated in the cited figures and text), for the purpose of identifying differences in the versions of the document. This teaching of Queen is equivalent to:

- *extending said block by matching bytes on both sides of said block.*

Accordingly, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the method, disclosed in Moody, in view of Aiken, to include:

- *extending said block by matching bytes on both sides of said block,*

for the purpose of identifying differences in the versions of the document, as taught in Queen.

Response to Arguments

Applicant's arguments filed 10/31/2006 have been fully considered but they are not persuasive.

Claim Rejections – 35 U.S.C. § 101:

Applicant argues that the 101 rejections have been rendered moot by the BPAI decision in *Ex Parte Lundgren*, which held that a technical effects test was held inapplicable under 35 U.S.C. 101. See *Response* dated 10/31/2006 – Pages 19-20, spanning paragraph.

The examiner disagrees.

The examiner did not use a “technical effects” test to reject the claims. Rather, the rejections stated that the recited invention did not recite a “useful, concrete and tangible,” as required in *State Street Bank & Trust Co. v. Signature Financial Group, Inc.*, 149 F.3d 1368, 1373, 47 USPQ2d 1596, 1601 (Fed. Cir. 1998).

Applicant argues that a tangible result is produced by manipulating data in a computer in that the manipulation of such data results in changes in electrical charges in memory or magnetic properties of magnetic media when the data is stored. Applicant

remarks further that the presence of the [stored] file, whether it is viewed by a user, is a tangible result. See *Response* dated 10/31/2006 – Page 20, first full paragraph.

The examiner disagrees.

The examiner notes that none of the claims in the present invention recite that the “*difference file*” is **stored** after it is created. Thus, Applicant’s argument is dependent upon a condition that is not recited in the claims.

Claim Rejections – 35 U.S.C. §§ 102 and 103:

Applicant argues that the Office Action fails to provide a detailed action pointing out which portions of the prior art teach specific claim limitations. Applicant remarks that the Office Action repeatedly cites the entire reference document to reject the claim limitations and provides no guidance as to how the Office interprets any given limitation. See *Response* dated 10/31/2006 – Pages 20-21, spanning paragraph.

The examiner disagrees.

The examiner cites every figure and all text in the references because the examiner is relying on the entire disclosure/teachings of every reference to disclose/teach what is stated in the rationale explaining how each claim limitation reads on the relevant reference. It is the examiner’s position that the rationale explaining how each claim limitation reads on the relevant reference sets forth with specificity **how** the examiner is interpreting the claim limitation and **what** in the relevant reference covers the claim limitation.

The examiner notes that the claim limitations are straightforward, easily understood and do not allow for widely varied interpretations. Also, the disclosure/teachings of the references that are relied upon to cover the claim limitations are clearly and specifically set forth in the claim rejections.

Applicant argues that the combinations of references are not appropriate because each of the references teaches away from limitations of the claims. For example, Applicant remarks that Serbinis suggests that the documents are stored in each of their different versions at a server, thereby teaching away from the concept of transmission of difference files. In another example, Applicant argues that Moody discloses that documents are compared by going word by word through a document, thereby teaching away from use of a binary tree of segments of a document against which changes can be compared. Applicant also notes that Aiken does not use a binary tree for segments, but rather stores segments in a list. See *Response* dated 10/31/2006 – Page 21, first full paragraph.

The examiner disagrees.

In response to Applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). The examiner notes that, while it is improper to combine references when one of the references teaches away **from their combination**, it is permissible to use a

reference in a 103 rejection that teaches away from a particular claim limitation so long as that teaching does not teach away from the combination of the references.

In response to Applicant's observation that Serbinis teaches away from the concept of transmission of difference files, the examiner notes that Moody discloses transmitting difference files. Serbinis was not used to teach the concept of a difference file. Rather, Serbinis was used to teach, among other limitations, transmitting *encrypted* files.

In response to Applicant's observation that Moody teaches away from use of a binary tree of segments of a document, the examiner notes that Moody was not used to teach a binary tree of segments of a document. Rather, Aiken was used to teach this limitation in the 103 rejection for Claim 22.

In response to Applicant's observation that Aiken does not use a binary tree for segments, the examiner points to one example in Aiken that teaches storing data related to a document, including information regarding a substring of the document, in a binary tree (see Aiken – Column 9, Lines 32-37).

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within

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TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Doug Hutton whose telephone number is 571-272-4137. The examiner can normally be reached on Monday-Friday from 8:00 AM to 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon, can be reached at (571) 272-4136. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (571) 272-2100.

WDH
April 15, 2007



Doug Hutton
Primary Examiner
Technology Center 2100